CONCEPTUAL RESOURCE MANAGEMENT PLAN FOR THE MEADOWOOD PROJECT

Meadowood Project
GPA04-002; SP04-001; R04-004; TM5354; S04-005, S04-006, S04-007;
Log No. ER 04-02-004;
SCH #2004051028

Prepared for the County of San Diego
Department of Planning and Land Use
Contact: Dennis Campbell
5201 Ruffin Road, Suite B
San Diego, CA 92123-1666
(858) 505-6380

Preparers:

RECON Environmental, Inc.
1927 Fifth Avenue
San Diego, CA 92101-2358
(619) 308-9333
RECON NUMBER 3706B

Project Proponent:

Pardee Homes
10880 Wilshire Boulevard, Suite 1900
Los Angeles, CA 92101-2358

July 1, 2009

TABLE OF CONTENTS

TABLE OF CONTENTS (cont.)

TABLE OF CONTENTS (cont.)

FIGURES

TABLES

APPENDICES

TERMS AND ACRONYMS

AOS	Agricultural Open Space
BMP	Best Management Practices
BOS	Biological Open Space
CCR	Conditions, Covenants and Restrictions
CRMP	Conceptual Resource Management Plan
DCAO	Deputy Chief Administrative Officer
DEH	Department of Environmental Health
DPLU	Department of Planning and Land Use
DPR	Department of Parks and Recreation
DPW	Department of Public Works
FMP	Framework Management Plan
FPP	Fire Protection Plan
HMP	Habitat Management Plan
MOU	Memorandum of Understanding
MSCP	Multiple Species Conservation Program
RM	Resource Manager

EXECUTIVE SUMMARY

The project proponent proposes a 389.5-acre residential development located in the southeastern corner of the Fallbrook Community Plan area of the unincorporated region of San Diego County (County). The project site (site) is positioned northeast of the interchange of Interstate 15 (I-15) and State Route 76 (SR-76) and north of the San Luis Rey River. The site is bordered on the west by two planned communities, Campus Park and Campus Park West and future Palomar College campus. It is bordered on the south by Rosemary's Mountain Rock Quarry, and on the north and east by orchards and open space.

The topography within the project area, including the open space, ranges from 260 feet above mean sea level to 840 feet above mean sea level. Monserate Mountain slopes into the northeastern portion of the site and the eastern edge of the site descends into Rice Canyon. Drainage occurs in a south-west conveyance pattern, ultimately flowing into the San Luis Rey River.

Vegetation communities on-site include disturbed and intact southern mixed chaparral, disturbed and intact Diegan coastal sage scrub, coast live oak woodland, and non-native annual grassland. Wetlands include mixed mule fat riparian scrub features, as well as man-made, isolated irrigation ponds supporting cattail marsh vegetation.

This Conceptual Resource Management Plan (CRMP) addresses management of the conservation easement component of the proposed project. This CRMP discusses the need for a resource management document, implementation of the document, a detailed description of the project site and project design, the biological and cultural resources subject to management, and the management elements and goals. This CRMP also includes a detailed implementation budget.

This CRMP was prepared in consultation with the CRMPs for the adjacent Campus Park and Campus Park West communities and is consistent with the management tasks addressed in those CRMPs.

1.0 INTRODUCTION

This CRMP has been prepared for the proposed Meadowood project in accordance with the mitigation requirements identified in the Meadowood Biological Resources Assessment (NRC 2008). This document is consistent with the format and content requirements of the "County of San Diego Report Format and Content Requirements – Resource Management Plans" (2007). The Fire Protection Plan (FPP) prepared for the Meadowood project is included with this document as Appendix C.

1.1 Purpose of Conceptual Resource Management Plan

The purpose of this CRMP is to provide direction for the permanent preservation and management of the on-site open space to be included in a conservation easement. This open space totals 122.99 acres and consists of:

1) On-site biological open space (BOS) totaling 122.4 acres which includes the wetland buffer and adjacent area in the western portion of the project site (0.9 acres) and expansive natural open space in the northeastern portion of the site (totaling 121.5 acres) and

2) Open space for preservation of archaeological resources (0.59 acre).

In addition, a total of 15 acres will be acquired as an off-site mitigation area to mitigate for jurisdictional impacts (11.1 acres which is the subject of the Wetlands Mitigation Plan (RECON 2009), freshwater marsh (0.9 acres), pastureland (2.7 acres) and willow/mulefat scrub (0.3 acres). Currently, a specific off-site mitigation area has not been identified.

More specifically, the plan will accomplish the following:

1. The plan will guide management of vegetation communities/habitats, plant and animal species, cultural resources, and programs described herein to protect and, where appropriate, enhance biological and cultural values.

2. The plan will guide appropriate public uses of the property (if public uses are included).

3. The plan will serve as a descriptive inventory of vegetation communities/habitats and plant and animal species that occur on or use this property.

4. The plan will serve as a descriptive inventory of archaeological and/or historical resources that occur on this property.

5. The plan will establish the baseline conditions from which adaptive management will be determined and success will be measured.

6. The plan will provide an overview of the operation, maintenance, administrative and personnel requirements to implement management goals, and serves as a budget planning aid.

Preservation of the 122.4 acres of open space on-site will be sufficient to provide in-kind mitigation) for potentially significant on-site and off-site impacts to sensitive biological resources including disturbed coastal sage scrub, southern mixed chaparral, non-native grassland, and coast live oak woodland. The off-site mitigation area will be sufficient to provide mitigation for jurisdictional, freshwater marsh, pastureland, and willow/mulefat scrub impacts. The BOS preserve will be conveyed with an easement to the County of San Diego. The underlying fee title will be conveyed to a non-profit entity which is acceptable to the County Department of Planning and Land Use.

1.1.1 Conditions and/or Mitigation Measures that require CRMP

A CRMP is required for projects in the County of San Diego when a planned project proposes open space preservation that would significantly benefit from active management and/or monitoring of biological and/or cultural resources. A CRMP is always required when a project proposes open space totaling more than 50 acres or more, regardless of the presence or absence of sensitive species. In the case of the Meadowood open space preserve, both of these parameters apply.

1.1.2 Agency Review and Coordination

This document was written in collaboration with the County of San Diego, Pardee Homes, and the environmental consultants responsible for the adjacent CRMPs for the Campus Park and Campus Park West communities.

The management of the Meadowood open space, as detailed in this CRMP, does not interfere with mitigation and monitoring requirements mandated by the California Department of Fish and Game, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, or by any other permitting agency.

1.2 Implementation

1.2.1 Responsible Parties and Designation of Resource Manager (RM)

The property is owned by the following entity:

Pardee Homes
10880 Wilshire Boulevard, Suite 1900
Los Angeles, CA 90024

This CRMP will be implemented and managed by one of the following resource managers:

- Conservancy group
- Natural resources land manager
- Natural resources consultant
- County Department of Parks and Recreation

- County Department of Public Works
- Federal or State Wildlife Agency (U.S. Fish and Wildlife Service, California Department of Fish and Game)
- Federal Land Managers, including but not limited to Department of Parks and Recreation, Watershed Management or Department of Public Works.

The selected RM will be approved by the Director of the Department of Planning and Land Use or the Department of Public Works (Director) and must have the following qualifications:

- Ability to carry out habitat monitoring or mitigation activities.
- Fiscal stability including preparation of an operational budget (using an appropriate analysis technique) for the management of this CRMP.
- At least one staff member with a biological, ecological, or wildlife management degree or have an MOU with a qualified person with such a degree.
- A cultural resource professional on staff or an MOU with a cultural consultant.
- Experience with habitat management in southern California.

Once a RM is selected, the fee title of all separate open space lots will be transferred to them. An Open Space or Conservation Easement will be recorded prior to approval of grading and/or improvement plans, and prior to approval of the Final Map. The easement will identify the County and/or other responsible agency as the third-party beneficiary. If the County or an agency accepts the fee title an easement dedication will not be required.

1.2.2 Financial Responsibility and Mechanism

One of the following mechanisms will be used to financially implement this CRMP:

- Endowment: A one-time non-wasting endowment.
- Another director-approved mechanism such as annual fees. All funding mechanisms must demonstrate that fees will be reliably and permanently collected for this purpose.

1.2.3 Cost Estimate/Budget

To Be Determined

1.2.4 Reporting Requirements

An Annual Operation Report will be submitted to the County and applicable resource agencies with sufficient fees to pay for County review staff time.

Per County guidelines, the report will provide a concise yet comprehensive summary of all management and monitoring methods implemented, identify any new management issues, and address the success or failure of management activities through monitoring results. The report will include a summary of changes from baseline or previous year conditions for species and vegetation communities and address any monitoring and

management limitations, including weather. The report will also address any adaptive management resulting from previous monitoring results and provide a methodology for measuring the success of adaptive management.

California Natural Diversity Database (CNDDB) forms will be submitted for any new sensitive species occurrence observed or significant changes to known occurrences. These will be included as attachments to the report. If invasive plant forms are completed, they will also be included as an attachment to the report.

1.2.5 Signed Agreement/Memorandum of Understanding

To be provided at a later date.

2.0 PROPERTY DESCRIPTION

2.1 Legal Description

The project site is located within Section 36 of Township 9S, Range 3W (note that part of the project lies within a land grant that was not surveyed into sections) approximately 45 miles north of downtown San Diego, 20 miles from the Pacific Ocean at Oceanside, about 13 miles from Temecula in Riverside County, and five miles south of the Riverside County line. More specifically, the 389.5-acre Meadowood project site is located east of I-15 and north of SR-76 in the unincorporated area of the county of San Diego within the Fallbrook Community Plan area (Figure 1).

Pala Road/SR-76 traverses east/west through the southern portion of the property. The property is located approximately 500 feet to the northeast of Pankey Road, and approximately one-third mile north of the San Luis Rey River. The property is approximately one-half mile east of I-15. The addresses for the property were reported as 5326, 5328, 5338, and 5606 Pala Road/SR-76. The property consists of 12 irregularly shaped parcels described as follows:

Assessor's Parcel Number	Approximate Acreage	Land Use / Coverage
1081205200	11.0	scrubs and chaparral.
1081220800	30.0	mixed scrubs, chaparral, citrus orchards, and non-native grassland
1081221500	99.2	scrubs, chaparral, citrus, and avocado orchards
1081205300.	12.7	primarily citrus orchards
1081220900:	32.2	citrus orchards and non-native grasslands
1081220300.	21.2	citrus orchards
1081205400	43.3	primarily citrus orchards.
1081221900	76.3	citrus and avocado orchards. This parcel also contains an irrigation pond
1081211500	24.8	citrus orchards and an irrigation pond.
1250610400	25.4	undeveloped
1250620400	4.1	citrus orchards
1250610700	7.5	undeveloped
Misc. Roads	1.8	roads
	389.5	Total Acreage

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FIGURE 1

Meadowood Property

2.2 Geographical Setting

The project site (Figure 2) is characterized by diverse topography and a variety of vegetation types and habitats. It occupies the eastern portion of a well-defined valley surrounded by steep hills. The dominant feature is Monserate Mountain, the southern ridgeline of which occupies the eastern portion of the site. The topography of the project site ranges from gently sloping, sparsely vegetated terrain approximately 260 feet above mean sea level (MSL) at the southwestern end of the site, nearest to the San Luis Rey River, to the steeply sloping ridgeline along the northeastern portion of the site, which is the southern flank of Monserate Mountain with an elevation of approximately 840 feet above MSL. The eastern boundary descends into Rice Canyon, most of which is farther to the east. The site generally drains to the south and west and eventually into the San Luis Rey River.

The County is in the process of developing the North County Multiple Species Conservation Program (MSCP). Meadowood is designed to contribute to regional conservation and be consistent with the North County MSCP. The County, California Department of Fish and Game (CDFG), and U.S. Fish and Wildlife Service (USFWS) have been actively consulted to address habitat conservation issues. The development/open space configuration in Meadowood provides key habitat and a movement corridor consistent with the intent of North County MSCP. This is done through the preservation of coastal sage scrub, southern mixed chaparral, agriculture, and oak woodland in the northern and eastern portions of the property, providing a contiguous habitat area extending from the Campus Park property to the west, across the northern end of Meadowood, then south to the San Luis Rey River. Approximately 122.4 acres in Meadowood are being preserved; approximately 115.6 of which have been negotiated as a hard line for inclusion in the North County MSCP.

2.3 Land Use

The majority of the 389.5-acre project site is currently in active agricultural use with citrus and avocado groves. Scattered throughout the project site are 13 agriculture associated sheds and other structures. Annual grasslands and native vegetation surround the agricultural areas, primarily in the northern and eastern portions of the project site. Land to the north and east of the project site is undeveloped and consists of citrus and avocado orchards, pasture land, and natural open space.

There has been a moderate amount of development including Lake Rancho Viejo to the south of the river, Pala Mesa to the west of I-15, and rural residential development and large areas of agriculture to the south and east. A quarry has been approved just east of the property near Rice Canyon Road and SR-76.

2.4 Geology, Soils, Climate, and Hydrology

Geocon, Incorporated (August 22, 2002) conducted field investigations of the project site on July 1, 2, and 8 of 2002, which consisted of a project site reconnaissance and the excavation of exploratory borings, trenches, and seismic refraction traverses.

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FIGURE 2

Regional Location

2.4.1 Faults

According to a review of published geologic maps and reports (Alquist-Priolo Earthquake Fault Zoning Act, Special Publication 42, Revised 1997, Fault Rupture Hazard Zones in California), the proposed project does not lie within any special hazard area identified by the Alquist-Priolo Earthquake Fault Zoning Map. There are 29 known active faults located within a search radius of 62 miles (100 kilometers) from the project site, and the nearest known active faults are the Temecula and Julian segments of the Elsinore Fault located approximately seven and eight miles northeast of the project site, respectively. Major earthquakes occurring on the Elsinore Fault or other regionally active faults located in the southern California area could subject the project site to moderate-to-severe ground shaking within the life span of the proposed structures.

2.4.2 Geology

Three surficial soil types and three geologic formations were encountered during the field investigation. Surficial soil deposits include undocumented fill, topsoil, and alluvium. Formational units include Quaternary-aged Terrace Deposits, Cretaceous-aged Bonsall Tonalite, and San Marcos Gabbro (Larsen 1948). The on-site soils consist predominantly of fine- to coarse-grained, silty sands, clayey sands, and sandy silts. These materials generally have a very low to medium expansion potential. Oversize concrete rubble and other undocumented fill are present within two westward-draining arroyos in the central portion of the project site. The rubble fill is estimated to be in excess of 20 feet thick in the deeper arroyos and canyons. The fills are potentially compressible and subject to collapse with an increase in moisture content. Complete removal and recompaction, including special placement procedures for the rubble fills, will be necessary in areas planned to receive structural fill and/or settlement-sensitive structures.

2.4.3 Expansive Soils

The proposed project is located on expansive soils as defined within Table 18-I-B of the Uniform Building Code (1994). Alluvium below groundwater is generally located along the western property margin and in the southwestern portion of the project site. Based on Geocon's analysis, a zone of approximately 17 feet of potentially liquefiable material exists in the main drainage area at the southwestern corner of the project site.

2.4.4 Liquefaction

Liquefaction is a phenomenon where loose, saturated, and relatively cohesionless soil deposits lose strength during strong ground motions. Liquefaction analyses were conducted on the project site, and indicated that alluvium deposits are located below the water table. Because of the high groundwater table, the alluvium deposits, and the proximity to active and potentially active seismic areas of the County (namely the Elsinore Fault Zone), there is the potential for the Proposed Project to be susceptible to liquefaction.

2.4.5 Rockfall

The proposed project will be developed on and near steep slopes that may become unstable in the event of seismic activity. A potential exists for rockfall from the west-

facing slope of Rosemary's Mountain located immediately south of Monserate Mountain. The area of concern lies on the east side of proposed Horse Ranch Creek Road from Pala Road to approximately 2,000 feet into the project area. Large boulders on the order of 20 feet or greater in diameter are present on the natural slopes above the road. The natural hillside has slope inclinations ranging from 1.3:1 to 3:1.

2.4.6 Erodibility

The entire project site is comprised of soils that are categorized by the Soil Survey of San Diego County as "Severely or Moderately Erodible." Some of the geologic effects created by poorly protected severely erodible soils can range from altering natural drainage features to creating environments suitable for landsliding and rock fall.

2.4.7 Soil Types

Soil types (Table 1) found within the project site include the following:

- Three types of Wyman loam (32.95 acres), located in a small pocket along the northeastern border, and Grangeville fine sandy loam (3.65 acres) and Tujunga sand (0.78 acres) located on the southernmost tip of the project boundary.

- Two types of Fallbrook sandy loam (17.39 acres), located in the central western area of the project site.

- Two types of Ramona sandy loam (30.64 acres), located along the southwestern edge of the project site; Arlington coarse sandy loam (9.98 acres) located towards the southern end of the project site; and Cienaba very rocky coarse sandy loam (16.70 acres) located along the southeastern edge of the project boundary.

- Two types of Las Posas fine sandy loam, 28.54 acres located close to the western project boundary north of the center, and 44.80 acres located in the central area of the project site.

- Capability Steep gullied land (StG) comprises 7.56 acres of the project site. This soil is in class VIII, with a steep landform and limitations that preclude commercial plant production, restricting its use to recreational purposes, wildlife habitat, watershed, or aesthetic purposes.

- Las Posas stony fine sandy loam (196.52 acres) soils have very severe limitations that make it unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

2.4.8 Hydrology

The proposed project is located within the San Luis Rey Watershed but is divided into two hydrologic subareas by a ridgeline on the eastern half of the project site. The ridge separates the Bonsall hydrologic sub-basin (903.12) and the Pala hydrologic sub-basin (903.12) and splits the existing runoff to the west and east, respectively. The proposed project footprint is entirely within the western portion (Pala hydrologic sub-basin) and the portions of the proposed project within the Bonsall hydrologic sub-basin will remain

TABLE 1
ON-SITE SOIL RESOURCES

Soil Type/ Symbol	Soil Description	No. of Acres	Capability Unit	Storie Index
AvC ^	Arlington coarse sandy loam, 2 to 9 percent slopes	9.98	IIIe-8 (19)	47
CmrG	Cienaba very rocky coarse sandy loam, 30 to 75 percent slopes	16.70	VIIs-8 (19)	<5
FaC2 ^	Fallbrook sandy loam, 5 to 9 percent slopes, eroded	6.68	IIIe-1 (19)	51
FaE2	Fallbrook sandy loam, 15 to 30 percent slopes, eroded	10.71	VIe-1 (19)	35
GoA *	Grangeville fine sandy loam, 0 to 2 percent slopes	3.65	IIw-2 (19)	81
LpD2	Las Posas fine sandy loam, 9 to 15 percent slopes, eroded	28.54	IVe-1 (19)	33
LpE2	Las Posas fine sandy loam, 15 to 30 percent slopes, eroded	44.80	VIe-1 (19)	26
LrG	Las Posas stony fine sandy loam, 30 to 65 percent slopes	196.52	VIIe-7 (19)	8
RaC ^	Ramona sandy loam, 5 to 9 percent slopes	29.79	IIIe-1 (19)	58
RaD2	Ramona sandy loam, 9 to 15 percent slopes, eroded	0.85	IVe-1(19)	48
StG	Steep gullied land	7.56	VIIIe-1 (19)	<10
TuB ^	Tujunga sand, 0 to 5 percent slopes	0.78	IVs-4 (19)	39
WmB *	Wyman loam, 2 to 5 percent slopes	0.95	IIe-1 (19)	81
WmC ^	Wyman loam, 5 to 9 percent slopes	9.87	IIe-1 (19)	77
WmD	Wyman loam, 9 to 15 percent slopes	22.13	IIIe-1 (19)	69
Total Acres		**389.50**		-

*Prime Farmland Soil
^Farmland of Statewide Importance Soil

undisturbed within the BOS. A ridgeline runs north and south through the easterly third of the project site and the topography slopes easterly and westerly away from the ridgeline. The western portion of the project site ultimately drains towards Horse Ranch Creek and then to the San Luis Rey River through public storm drains facilities proposed with this project. There are no major known drainage improvements associated with the existing project site. Existing culverts, swales, and channels currently control the runoff on the project site.

Groundwater was encountered in alluvium along the north branch of the San Luis Rey valley at depths between 12 and 18 feet. Subsurface seepage and wet zones of perched groundwater also occur in tributary drainages, but is likely the result of citrus and avocado grove irrigation.

2.4.9 Climate

The project area, like the rest of San Diego County's inland valley areas, has a Mediterranean climate characterized by warm, dry summers and mild, wet winters. The mean annual temperature for the project area is 74 degrees Fahrenheit (F). The average annual precipitation is 13 inches, falling primarily from November to April. Winter low temperatures in the project area average about 44 degrees F, and summer high temperatures average about 81 degrees F (Weather.com 2006). Cool air drains into the valley from the surrounding hillsides. Frost often settles on the valley floor between the beginning of November and the end of March. The project site is located in the "transitional" plant climate zone (University of California Extension 1970).

2.5 Trails

Existing dirt roads in the open space will contribute to the trail system. No new trails through the open space areas are proposed, as the Meadowood project trail system within the open space utilizes existing trails that have been used for many years. (Figure 3).

There are several different trail experiences proposed within the proposed project, including a rural trail along the ridgeline, a trail through the groves, a multi-use trail along Horse Ranch Creek Road, and several other connections. A system of riding and hiking trails is designed to connect the neighborhoods to one another, to the elementary school and to the regional trail system. Trails are also located to allow residents to walk children to school, the park, or to adjacent transit service or commercial business. A total of approximately 5.9 miles of multi-use trails are proposed throughout the project area.

The compact form of Meadowood limits locations for regional trails. However, the project would provide a vital trail link between an existing trail north of the site to the San Luis Rey River Trail. Additionally, more rural trails along interior slopes in the development area will be constructed, leading to the groves and natural areas. Trail alignments shall be located on existing paths, trails, roads, utility easements, and other disturbed habitat areas to avoid environmental impacts. Regional public trails shall be dedicated to and maintained by the County. All other trails in Meadowood will be owned and maintained by the homeowners' association.

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Project Boundary
Proposed Public Trail
Proposed Private Trail
Pala Preserve #15
Natural Open Space
Agricultural Open Space

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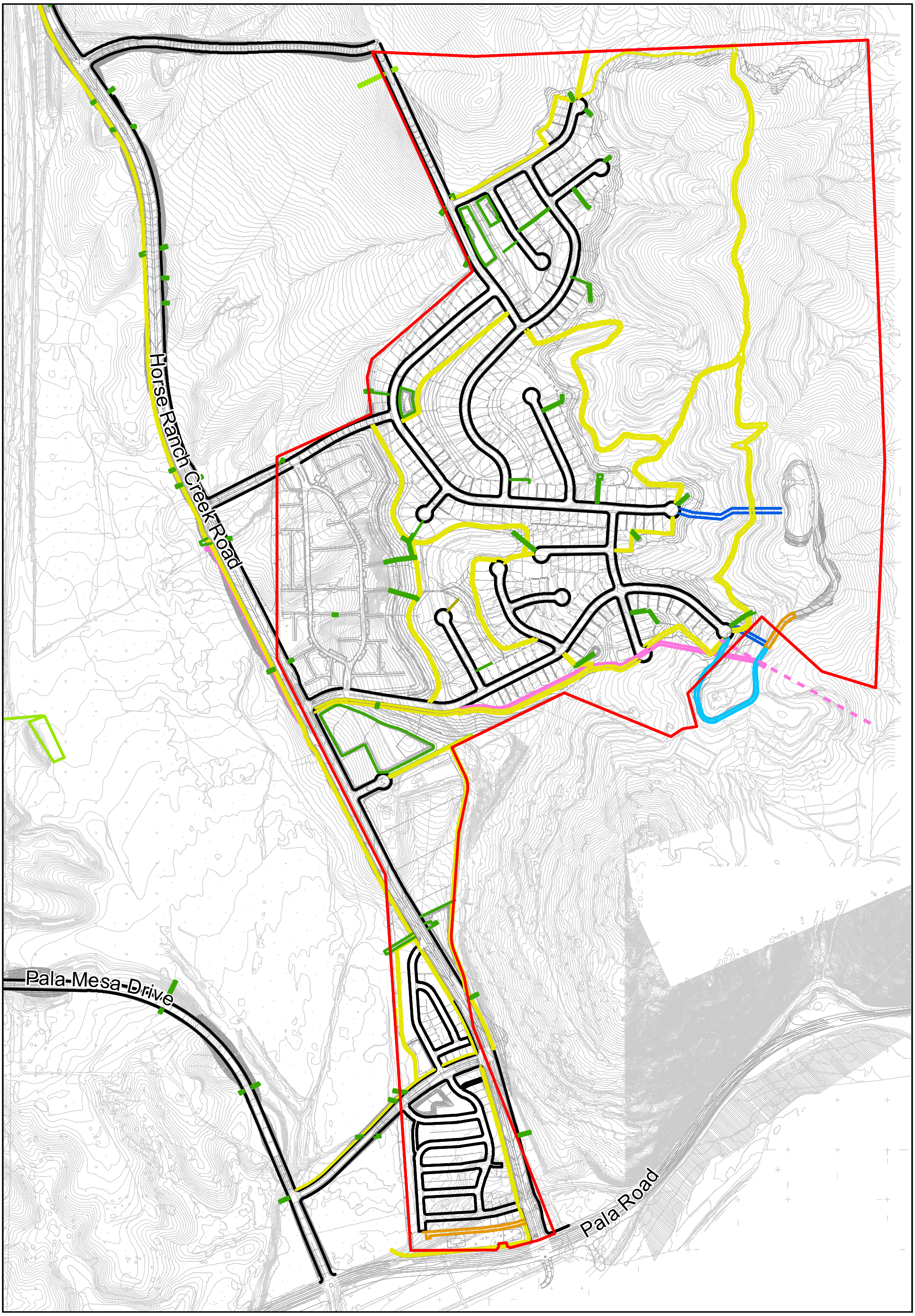
FIGURE 3

Meadowood Trails



Project Boundary

Easements

- Electrical Easement
- Electrical Easement Existing
- Access Easement
- Drainage Easement
- General Utility Easement
- Private Easement
- Storm Drain Easement
- Trail Easement
- Water Easement
- Right-of-Way Easement
- Right-of-Way Easement Existing
- Right-of-Way Easement Proposed

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FIGURE 4

Proposed Grading Plan/Vesting Tentative Map with Easements

2.6 Easements or Rights

Existing easements occurring within the project site are shown on Figure 4.

2.7 Fire History

As shown in Figure 5, the 2006 Pala Fire was located approximately one-quarter mile to the southeast of the project site. The 2007 Rice Fire perimeter encompassed portions of the north and northeastern parts of the project site.

3.0 BIOLOGICAL RESOURCES DESCRIPTION

This section is based on the biological data collected by Natural Resource Consultants during general and focused surveys conducted from 2002 through 2008. The resulting report, A Biological Assessment of the 389.5-acre Meadowood Site Located in the City of Fallbrook, San Diego County, California was revised on May 14, 2009. Existing biological resources on the project site and off-site improvement areas are shown in Figure 6.

3.1 Vegetation Communities/Habitats

The proposed BOS includes 1.7 acres of coast live oak woodland, 74.5 acres of Diegan and disturbed Diegan coastal sage scrub, 17.5 acres of southern mixed chaparral, 22.0 acres of non-native grassland, and 8.4 acres of disturbed/developed land. In addition to the natural open space, the Meadowood project also proposes retention of 49.3 acres of citrus and avocado groves in agricultural open space.

3.1.1 Description of Quality of Vegetative Communities

Coast Live Oak Woodland

The coast live oak (*Quercus agrifolia*) is the sole dominant tree species in coast live oak woodland. The coast live oak woodland within the open space consists of remnant specimens as well as intact groves on slopes in the eastern section of the site. It is associated with coastal sage scrub, southern mixed chaparral, and annual grassland (Natural Resource Consultants 2005). Coast live oak woodland has a poorly developed shrub layer that often includes toyon (*Heteromeles arbutifolia*), *Ribes* species, or blue elderberry (*Sambucus mexicana*). The herbaceous layer is often dominated by ripgut brome (*Bromus diandrus*) and other non-native herbaceous species (Holland 1986).

Openings in coast live oak woodland have the potential to support the coastal western whiptail (*Aspidoscelis tigris stejnegeri*), a California species of special concern.

A total of 1.7 acres of equivalent coast live oak woodland will be preserved within the open space.

Diegan Coastal Sage Scrub and Disturbed Coastal Sage Scrub

Diegan coastal sage scrub is dominated by soft-woody drought-tolerant subshrubs including California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), California broom (*Lotus scoparius*), laurel sumac (*Malosma laurina*),

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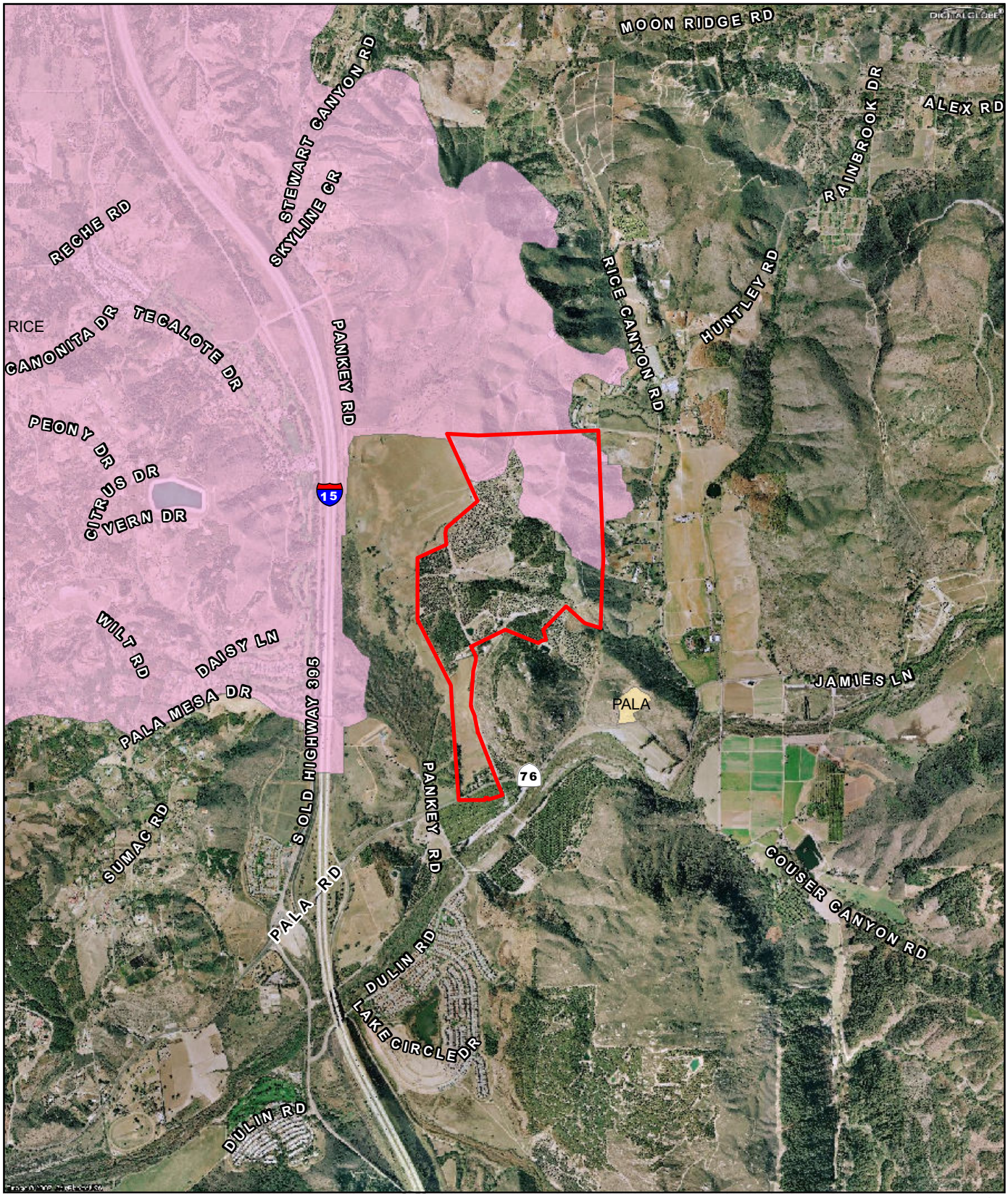

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FIGURE 5

Extent of 2006 & 2007 Fires

Map Source: NRC, May 2009

BIOLOGICAL RESOURCES

- Boundary
- On Site Impact Area
- Off-site Improvements
- Proposed SR76 Realignment
- Parcel Boundaries
- Open Space

- (AG) Agriculture - 18000/18100
- (NNG) Non-native Grassland - 42200
- (CSS) Coastal Sage Scrub - 32500
- (DCSS) Disturbed Coastal Sage Scrub - 32500
- (CHP) ern Mixed Chapparal - 37120
- (NNT) ative Trees - 11000
- (PAS) e - 18310

- (OW) Coast Live Oak Woodland - 71160
- (WMS) Willow and Mulefat Scrub - 63300
- (SAWRF) Southern Arroyo Willow Riparian Forest - 61320
- (SWS) Southern Willow Scrub - 63320
- (FWM) Freshwater Marsh - 52400
- (OWP) Open Water Ponds - 13100
- (DIST) Disturbed - 11000/12000/13000

- Arroyo Toad (Cadre 2003-2007)
- California Gnatcatcher (NRC 2007)
- Least Bells Vireo (NRC 2007 and 2008)
- Western Spadefoot (Cadre 2003-2005)
- Orange-throated Whiptail (NRC and Cadre 2003-2006)
- San Diego Coast Horned Lizard (Cadre 2004)
- Two-striped Garter Snake (Cadre 2003-2005)
- Northwestern San Diego Pocket Mouse (Cadre 2003-2005)

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FIGURE 6
Biological Resources

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lemonadeberry (*Rhus integrifolia*), and white sage (*Salvia apiana*) (Holland 1986). The herbaceous layer usually consists of native and non-native forbs, native bunch grasses, lichen, and cobble.

The site also supports disturbed coastal sage scrub which occurs on portions of the western-facing slopes of Monserate Mountain. Intact Diegan coastal sage scrub was previously affected by the 2007 Rice Fire and is currently recovering (NRC 2008). Opportunistic non-native annual grasses and forbs colonized the herbaceous layer following disturbance.

Diegan coastal sage scrub is both regionally and locally important, as it is known to provide habitat for a number of California species of special concern including the coastal western whiptail, San Diego coast horned lizard (*Phrynosoma coronatum (blainvillei*), and southern California rufous-crowned sparrow (*Aimophila ruficeps canescnes*) (NRC 2008).

Diegan coastal sage scrub is a County sensitive habitat. It is also considered a state rank of S3.1 by the CDFG's CNDDB, which indicates that it is declining in acreage throughout its range due to land use changes. A total of 74.5 acres of Diegan coastal sage scrub/disturbed coastal sage scrub will be preserved.

Southern Mixed Chaparral

Southern mixed chaparral is dominated by sclerophyll shrubs such as chamise (*Adenostoma fasciculatum*), manzanitas (*Arctostaphylos* and *Xylococcus* sp.), wild-lilacs (*Ceanothus* spp.), and toyon (*Heteromeles arbutifolia*). Agaves may also be present in the shrub layer including Mohave yucca (*Yucca schidigera*) and chaparral yucca (*Y. whipplei*). The herbaceous layer may include bulbs such as white globe lily (*Calochortus albus*) and chocolate lily (*Fritillaria biflora*) (Holland 1986).

Chaparral habitats have the potential to support the coastal western whiptail, Coronado western skink (*Eumeces skiltonianus interparietalis*), San Diego coast horned lizard, San Diego ringneck snake (*Diadophis punctatus similas*), two-striped garter snake (*Thamnopsis hammondi*), southern California rufous-crowned sparrow, and northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), all California species of special concern.

Southern mixed chaparral is a County sensitive habitat, and 17.5 acres of this habitat will be preserved as open space.

Non-native Grassland

Non-native, or annual, grassland occurs in areas where the soil has been previously disturbed, usually due to agriculture (NRC 2008). It is dominated by highly adaptable and competitive species such as wild oats (*Avena* sp.), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), black mustard (*Brassica nigra*), and short-pod mustard (*Hirschfeldia incana*) (NRC 2008).

Annual grasslands have the potential to support the northwestern San Diego pocket mouse.

Non-native grassland is a County sensitive habitat, and 22.0 acres of this habitat will be preserved as open space.

Developed Land

Dirt roads have been graded throughout the open space to provide access to agricultural areas as well as to adjacent slopes (NRC 2008). Developed areas cover 6.5 acres in the BOS and are not considered habitat.

Non-native trees cover approximately 0.2 acres in the BOS and are comprised almost exclusively of eucalyptus species.

3.2 Plant Species

3.2.1 Plant Species Present and Correlation of Species with Habitat On-Site

The plant species within the open space are consistent with species found in adjacent areas and within northern San Diego County (NRC 20058). The majority of plant species on-site are introduced tree crop varieties and exotic opportunistic species that tend to colonize disturbed habitat and are associated with agriculture, pastureland, non-native grasslands, and developed areas. Non-native tree species on-site include avocado (*Persea americana*), lemon (*Citrus limonia*), orange (*C. sinensis*), and eucalyptus. Non-native herbaceous species common to the site include wild oat, ripgut brome, black mustard, and short-pod mustard. Native plants are also present and include southern mixed chaparral, native grassland, coast live oak woodland, and coastal sage scrub species.

3.2.2 Rare, Threatened, or Endangered Plants

There were no rare, threatened, endangered or otherwise sensitive plant species observed within the project area. NRC surveyed for the presence of sensitive plants between mid-October 2003 and July 2008 (NRC 2005). Table 2 provides a list of sensitive plant species that have a moderate to high potential to occur on the Meadowood site.

3.2.3 Non-native and/or Invasive Plant Species on the Project Site

Non-native trees cover approximately 8.3 acres (2.1 percent) of the entire site and are comprised almost exclusively of eucalyptus species.

Non-native grassland covers approximately 31.9 acres (8.2 percent) of the site. Dominant plants in this environment include exotic grasses like wild oats (*Avena* sp.), ripgut grass (*Bromus diandrus*) and red brome (*Bromus madritensis* ssp. *rubens*), as well as black mustard (*Brassica nigra*) and short-pod mustard (*Hirschfeldia incana*), which are conspicuous and sometimes prevalent in this community. Smaller amounts of Russian thistle (*Salsola tragus*), Italian thistle (*Carduus pycnocephalus*), tocalote (*Centaurea melitensis*), common horseweed (*Conyza canadensis*), Crete hedypnois (*Hedypnois cretica*), telegraph weed (*Heterotheca grandiflora*), wild lettuce (*Lactuca serriola*), California chicory (*Rafinesquia californica*), prickly sow-thistle (*Sonchus asper*), twiggy wreathplant (*Stephanomeria virgata*), filaree (*Erodium spp.*), and horehound (*Marrubium vulgare*) also occur.

TABLE 2
SENSITIVE PLANT SPECIES WITH MODERATE TO HIGH POTENTIAL FOR OCCURRENCE WITHIN THE MEADOWOOD SURVEY AREA

Species	State/Federal Status	CNPS List	County of San Diego MSCP	Habitat/Blooming Period	Comments
Acanthomintha ilicifolia San Diego thornmint	CE/FT	1B	–	Annual herb; chaparral, coastal sage scrub, and grasslands on friable or broken clay soils; blooms April–June; elevation less than 3,100 feet.	Not Detected
Ambrosia pumila San Diego ambrosia	–/FE	1B	Covered	Perennial herb; chaparral, coastal sage scrub, valley and foothill grassland, creek beds, vernal pools, often in disturbed areas; blooms May–Sept.; elevation less than 1,400 feet. Many occurrences extirpated in San Diego County.	Not Detected
Arctostaphylos rainbowensis rainbow manzanita	–/–	1B	–	Evergreen shrub; chaparral; blooms December–March; elevation between 738 and 2,099 feet.	Not Detected
Centromadia (Hemizonia) parryi ssp. *australis* southern tarplant	–/–	1B	–	Annual herb; margins of marshes and swamps, vernally mesic valley and foothill grassland, vernal pools; blooms May–November; elevation between 0–1,400 feet.	Not Detected
Chaenactis glabriuscula var. *orcuttiana* Orcutt's pincushion	–/–	1B	–	Annual herb; coastal bluff scrub, coastal dunes; blooms January–August; elevation 10–328 feet	Not Detected
Dodecahema leptoceras slender-horned spineflower	CE/FE	1B	Not Covered	Annual herb; chaparral, cismontane woodland, sand/alluvial fans in coastal scrub	
Monardella hypoleuca ssp. *lanata* felt-leaved monardella	–/–	1B	Covered	Rhizomatous herb; chaparral, cismontane woodland; blooms June–August; elevation 984–5,166 feet.	Not Detected

TABLE 2
SENSITIVE PLANT SPECIES WITH MODERATE TO HIGH POTENTIAL FOR OCCURRENCE WITHIN THE MEADOWOOD SURVEY AREA
(continued)

Species	State/Federal Status	CNPS List	County of San Diego MSCP	Habitat/Blooming Period	Comments
Tertacoccus dioicus Parry's tetracoccus	–/–	1B	Covered	Deciduous shrub; chaparral, coastal scrub; blooms April–May; elevation 541–3,280	Not Detected

SENSITIVITY CODES

Federal and State Listed Plants

FE = Federally listed, endangered
FT = Federally listed, threatened
CE = State listed, endangered
CR = State listed, rare

County of San Diego

NE = Narrow endemic
MSCP = MSCP covered species

California Native Plant Society Lists

1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.
2 = Species rare, threatened, or endangered in California but which are more common elsewhere. These species are eligible for state listing.
4 = A watch list of species of limited distribution. These species need to be monitored for changes in the status of their populations.

Agricultural vegetation covers approximately 209.9 acres (53.9 percent) of the site and is composed of citrus and avocado orchards.

See Appendix A for the complete floral compendium.

3.3 Wildlife Species

3.3.1 Species Present and Correlation of Species with Habitat On-Site

Invertebrates, particularly butterflies, common reptiles and amphibians, common resident birds, and mammals constitute the majority of the wildlife community within the open space.

Wildlife diversity corresponds in a fairly consistent manner with the vegetation communities present (NRC 2008). The highest faunal diversity was recorded in the northeast corner of the open space along the slopes and ridges of Monserate Mountain (NRC 2005).

3.3.2 Rare, Threatened, or Endangered Wildlife

The following 12 sensitive wildlife species were observed within the project area: the western spadefoot toad (*Spea hammondi*), Belding's orange-throated whiptail (*Aspidoscelis hyperythrus beldingi*), coastal western whiptail (*Aspidoscelis tigris stejnegeri),* Coronado western skink (*Eumeces skiltonianus interparietalis*), San Diego coast horned lizard (*Phrynosoma coronatum blainvillei*), San Diego ringneck snake (*Diadophis punctatus similis*), two-striped garter snake (*Thamnophis hammondii*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), northern harrier (*Circus cyaneus*), coastal California gnatcatcher (*Polioptila californica californica*), western bluebird (*Sialia mexicana*), and northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*). These species are all California species of special concern. None of them are state or federally threatened or endangered with the exception of the coastal California gnatcatcher. The project site was surveyed for the presence of sensitive herpetological wildlife species between 2003 and 2005. Table 3 provides a list of sensitive wildlife species with moderate to high potential to occur on the Meadowood site. These species had the potential to occur based on CDFG's CNDDB (2004) for the 7.5-minute USGS Temecula, Pechanga, Bonsall and Pala quadrangles.

3.3.3 Non-native and/or Invasive Wildlife Species

See Appendix B for a complete list of wildlife species observed within the project area.

3.4 Overall Biological Value

The BOS will maintain a total of 115.7 acres of sensitive vegetation communities/habitats including coast live oak woodland, coastal sage scrub/ disturbed coastal sage scrub, southern mixed chaparral, and non-native grassland. An additional 67 acres consisting of graded/disturbed land and non-native trees will expand the preserve to 122.4 acres, a sizeable area for biological value. The project will also preserve 49.3 acres of agriculture in an agricultural open space easement.

TABLE 3
SENSITIVE WILDLIFE SPECIES DETECTED WITH MODERATE TO HIGH POTENTIAL FOR OCCURRING ON THE MEADOWOOD SITE

The following table lists the known status of the sensitive wildlife species detected with moderate to high potential for occurring on the Meadowood site and contains all wildlife species occurrences from the California Natural Diversity Database (CNDDB) for the USGS Temecula, Pechanga, Bonsall and Pala quadrangles. State ranking codes and USFWS and CDFG status notes are taken directly from the CNDDB. Definitions for conservation status codes and on-site status determinations are provided at the bottom of the table.

Scientific Name	Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site	Potential to Occur on Site	Factual basis for determination of occurrence potential
Amphibians						
Bufo californicus	arroyo toad	FE, SC	HABITAT: Restricted to open riparian woodlands and alluvial habitats, where it breeds in shallow, gravelly, slow-moving streams and pools. It is a habitat specialist, requiring exposed shallow, gravel- or sand-based pools with low current velocity and little marginal vegetation in streams free of predatory fishes. DISTRIBUTION: Foothill regions in southern California below 3,000 ft (900 m) elevation from San Luis Obispo County to Baja California. It historically occurred along the length of drainages, including coastal areas, but now survives generally in the headwaters as small isolated populations.	Detected on-site and in or around proposed off-site improvement areas (Cadre).	High	Small area of low quality foraging/aestivation habitat on-site just south of SR-76.
Spea (=Scaphiopus) hammondii	western spadefoot	SC	HABITAT: Arid and semi-arid regions in the lowlands and foothills (below 4,500 feet) in washes, river floodplains, alluvial fans, playas, and alkali flats. DISTRIBUTION: Primarily in Central Valley and adjacent foothills, and in the Coast Ranges from Redding to northwest Baja California. Now believed to be extirpated from most of southern California.	Detected (Cadre)	High	
Reptiles						
Aspidoscelis hyperythrus beldingi	Belding's orange-throated whiptail	SC	HABITAT: Open sandy areas associated with floodplains, as well as rocky areas in nearby brush and woodland. DISTRIBUTION: North of Baja California found in western San Diego County, Orange County, western Riverside County, and extreme southwestern San Bernardino County.	Detected	High	
Aspidoscelis tigris stejnegeri	coastal western	—	HABITAT: Semiarid rocky canyon slopes, gravelly	Detected (Cadre)	High	

TABLE 3
SENSITIVE WILDLIFE SPECIES DETECTED OR POTENTIALLY OCCURRING ON THE MEADOWOOD SITE
(continued)

	whiptail		washes, and sandy flats, as well as dirt trails, in coastal sage scrub, chaparral, open woodland, and desert. DISTRIBUTION: Orange and San Bernardino counties south into Baja California, from sea level to approximately 2000 meters.			
Charina trivirgata	rosy boa	—	HABITAT: Sage scrub, chaparral, riparian scrub, and riparian woodland. DISTRIBUTION: Los Angeles and Riverside counties south to northwestern Baja California, from sea level to approximately 1250 meters.	Not Detected	Moderate	Field surveys and pitfall trapping conducted during this species' optimal survey period did not detect this species on-site.
Crotalus ruber ruber	northern red-diamond rattlesnake	SC	HABITAT: Desert scrub, coastal sage scrub, chaparral, and woodland, often in association with rock outcrops. Occasionally occurs in grasslands and perimeter of cultivated fields. DISTRIBUTION: Below 4,000 ft (1,200 m), occasionally higher, from southern San Bernardino and western Riverside County south through Orange and San Diego County to Baja California.	Not Detected	High	Field surveys and pitfall trapping conducted during this species' optimal survey period did not detect this species on-site.
Diadophis punctatus similis	San Diego ringneck snake	SC	HABITAT: Moist environments within chaparral and grassland, as well as riparian woodland, often around and under rocks, rotting logs, bark, and boards. DISTRIBUTION: Orange County to northern Baja California, to approximately 2000 m elevation.	Detected (Cadre)	High	
Eumeces skiltonianus interparietalis	Coronado skink	SC	HABITAT: Grassland, sage scrub, chaparral, and mixed woodland, associated with streams, rocks, logs, and leaf litter, which provide cover and feeding opportunities. DISTRIBUTION: This subspecies in not recognized by Stebbins (2004), but is incorporated in with nominate E. s. skiltonianus. The nominate subspecies is found west of the Rocky Mountains; from southern British Columbia to northern Baja California. E. s. interparietalis is restricted to Riverside and San Diego counties and northwest Baja California.	Detected (Cadre)	High	
Phrynosoma coronatum (blainvillei)	coast (San Diego) horned lizard	SC	HABITAT: Generally occurs in sage scrub and chaparral, but can also be found in coniferous forest and broadleaf woodland. It is usually found in sandy	Detected (Cadre)	High	

TABLE 3
SENSITIVE WILDLIFE SPECIES DETECTED OR POTENTIALLY OCCURRING ON THE MEADOWOOD SITE
(continued)

			areas, especially where harvester ants (Pogonomyrmex spp.) are found. DISTRIBUTION: Southern Santa Barbara and Kern Counties southward through southwest San Bernardino and western Riverside Counties, into Baja California, Mexico, at locations approximately between 10 and 2130 meters.			
Thamnophis hammondii	two-striped garter snake	SC	HABITAT: Perennial and intermittent streams having rocky beds and bordered by willow thickets or other dense vegetation, including grassland, sage scrub and chaparral. They also inhabit shallow rivers and stock-ponds bordered by thick riparian vegetation. DISTRIBUTION: Coastal slope from Monterey County to northern Baja California from near sea level to 4,500 ft (1,370 m) elevation.	Detected (Cadre)	High	
			Birds			
Circus cyaneus	northern harrier	SC	HABITAT: Grasslands, agricultural fields, fresh- and brackish-water marshes. DISTRIBUTION: Throughout most of North America, including all of California below the mountains; however, breeding localities in Southern California are sparse.	Detected	High	
Accipiter cooperii	Cooper's hawk	SC	HABITAT: A variety of native and non-native woodlands, from the coast to the mountains. It nests primarily in moderately dense oak and riparian woodlands. DISTRIBUTION: Throughout most of United States. In southern California, it is fairly common winter visitor and uncommon summer resident west of the deserts.	Not Detected	High	Field surveys conducted during this species' optimal survey period did not detect this species on-site. No dense woodlands on-site.
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	SC	HABITAT: Most foothill slopes and ridges with low-growing shrub cover, typically coastal sage scrub and non-arborescent types of chaparral. Inhabits rocky slopes, often intermixed with grassy areas. DISTRIBUTION: Occurs west of the deserts from Ventura County south into Baja California.	Detected	High	
Amphispiza belli belli	Bell's sage sparrow	SC	HABITAT: Arid and semi-arid foothill slopes and ridges with low-growing shrub cover, typically in non-	Not Detected	Moderate	Field surveys conducted during this species' optimal

TABLE 3
SENSITIVE WILDLIFE SPECIES DETECTED OR POTENTIALLY OCCURRING ON THE MEADOWOOD SITE
(continued)

			arborescent types of chaparral and secondarily in coastal sage scrub. DISTRIBUTION: Year-round resident found west of the higher mountains, from Trinity County south to northwestern Baja California.			survey period did not detect this species on-site.
Aquila chrysaetos	golden eagle	SC	HABITAT: Open areas including grasslands, brushy or open wooded areas. It typically nests on cliffs and rock outcrops in more remote, rugged, mountainous areas. DISTRIBUTION: Throughout much of Northern Hemisphere; uncommon resident in southern California.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
Athene cunicularia	burrowing owl	SC	HABITAT: Inhabits relatively flat and open areas such as grasslands, coastal dunes and agricultural areas; requires the presence of rodent burrows for nesting and roosting activities. DISTRIBUTION: An uncommon to scarce local resident in southern California; more widespread in winter. Numbers have declined in past two decades.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
Campylorhynchus brunneicapillus sandiegensis	coastal cactus wren	SC	HABITAT: Clumps of prickly pear and cholla cactus within coastal sage scrub, on west- and south-facing slopes from the coast to the inner foothills. DISTRIBUTION: Coastal Los Angeles, Orange, and San Diego counties, south to northwestern Baja California.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
Dendroica petechia brewsteri	yellow warbler	SC	HABITAT: For breeding, usually riparian woodlands, but occasionally in montane chaparral and coniferous forests with dense ceanothus and manzanita understory. DISTRIBUTION: Throughout most of North America. In California, formerly bred nearly throughout in appropriate habitat; now restricted mostly to northern California and locally in southern California in Coast Ranges.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
Icteria virens	yellow-breasted chat	SC	HABITAT: For breeding, riparian scrub and woodland with dense cover, featuring willows and mulefat, as well as wild grape, blackberry, and poison-oak; occasionally in non-riparian dense scrub. DISTRIBUTION: Summer season resident in California,	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site. No dense woodlands on-site.

TABLE 3
SENSITIVE WILDLIFE SPECIES DETECTED OR POTENTIALLY OCCURRING ON THE MEADOWOOD SITE
(continued)

			nearly throughout in appropriate habitat.			
Polioptila californica	California gnatcatcher	FT, SC	HABITAT: Principally, the various associations of coastal sage scrub (Venturan, Riversidean, Diegan, Maritime, etc.), but also in chamise chaparral, especially where it occurs in association with sage scrub. Occasionally utilizes other habitats, such as riparian scrub, riparian woodland, and even grassland, outside the breeding season. DISTRIBUTION: Southeastern Ventura County (locally), Los Angeles County (locally, primarily in the southern portion), extreme southwestern San Bernardino County, western Riverside County, Orange County, and San Diego County west of the mountains. Also found throughout much of Baja California.	Not Detected	High	Field surveys conducted during this species' optimal survey period detected one individual just off-site and two individuals in the vicinity of proposed off-site improvement areas.
Sialia Mexicana	Western Bluebird	SC	HABITAT: Breeds in open oak woodlands, riparian deciduous trees, conifers with herbaceous understory. In winter uses open habitats. DISTRIBUTION: Fairly common to common year-round throughout much of California.	Detected	High	
			Mammals			
Chaetodipus californicus femoralis	Dulzura pocket mouse	SC	HABITAT: Occurs in coastal sage scrub, chamise, redshank and montane chaparral, sagebrush, annual grassland, valley foothill hardwood, valley foothill hardwood-conifer, and montane hardwood habitats. DISTRIBUTION: Along the southern California coast.	Not Detected	Moderate	Field surveys and pitfall trapping conducted during this species' optimal survey period did not detect this species on-site.
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	SC	HABITAT: Foothill slopes and ridges with vegetated with coastal sage scrub, sagebrush, desert scrub, chaparral, and annual grassland. DISTRIBUTION: Southwestern San Bernardino, western Riverside, and western San Diego counties.	Detected	High	
Dipodomys stephensi	Stephens' kangaroo rat	FE, FT	HABITAT: Valley and foothill grassland, and coastal sage scrub (often disturbed) with grassy openings and sparse understory. DISTRIBUTION: Western Riverside and northern San Diego counties.	Not Detected	Moderate	Field surveys and pitfall trapping conducted during this species' optimal survey period did not detect this species on-site.
Lepus	San Diego	SC	HABITAT: Prefers open areas, typically occurring in	Not	Moderate	Field surveys conducted

TABLE 3
SENSITIVE WILDLIFE SPECIES DETECTED OR POTENTIALLY OCCURRING ON THE MEADOWOOD SITE
(continued)

californicus bennettii	black-tailed jackrabbit		alluvial sage scrub and open sage scrub. DISTRIBUTION: Occurs in coastal southern California from approximately Santa Barbara County south into Baja California.	Detected		during this species' optimal survey period did not detect this species on-site.
Neotoma lepida intermedia	San Diego desert woodrat	SC	HABITAT: A variety of arid and semi-arid habitats, in dense brushy vegetation with cactus clumps, rock outcrops, rocky cliffs and slopes, from sea level to 8,500 ft in elevation. DISTRIBUTION: Along the coast from San Luis Obispo County to northwest Baja California, to approximately 2,000 m elevation.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
Perognathus longimembris brevinasus	Los Angeles pocket mouse	SC	HABITAT: Open ground with soils composed of fine sands. DISTRIBUTION: Restricted to lower elevation grasslands and Coastal Sage associations in the Los Angeles Basin, from approximately Burbank and San Fernando on the northwest to San Bernardino on the northeast, and Cabazon, Hemet, and Aguanga on the east and southeast. Their geographic limits on the southwest are not clear, but probably lie somewhere near the Hollywood Hills.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.

USFWS
FE: Species designated as Endangered under the Federal Endangered Species Act. Endangered = "any species in danger of extinction throughout all or a significant portion of its range."
FT: Species designates as Threatened under the Federal Endangered Species Act. Threatened = "species likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range."
FPE: Proposed for federal listing as Endangered.
FPT: Proposed for federal listing as Threatened

CDFG
ST: Threatened = "a species that, although not currently threatened with extinction, is likely to become an Endangered species in the foreseeable future in the absence of the special protection and management efforts required by this Act (California Endangered Species Act)."
SE: Endangered = "a species is endangered when its prospects of survival and reproduction are in immediate jeopardy from one or more causes."
SSC: Species of Special Concern.
FP: Fully protected by the State of California.

Preserving and managing the vegetation communities/habitat in the open space will help maximize the structural diversity of conserved habitats, provide for the conservation of spatially representative examples of highly valued habitat, establish significant blocks of habitat to reduce edge effects and maximize the ratio of surface area to perimeter of conserved habitat, conserve habitat for multiple species, and conserve migratory corridors and raptor foraging habitat.

TABLE 4
VEGETATION COMMUNITIES/HABITAT TYPES PRESERVED IN THE MEADOWOOD BIOLOGICAL OPEN SPACE

Vegetation Community/Habitat Type	Total Acres Preserved
Coast live oak woodland	1.7
Coastal sage scrub	74.5
Southern mixed chaparral	17.5
Non-native grasslands	22.0
Subtotal (sensitive habitats)	115.7
Graded developed areas	6.5
Non-native trees	0.2
Subtotal (Other vegetation communities)	6.7
Total Preserved Acreage	122.4

4.0 CULTURAL RESOURCES DESCRIPTION

The cultural resource survey identified a portion of the significant prehistoric archaeological site CA-SDI-682, which is eligible for the California Register of Historic Resources (California Register). CA-SDI-682, also known as the Pankey site, was originally excavated and reported by True et al. (ASM Affiliates, 2009). Based on the results of the survey and archival research, subsurface testing was conducted of the southwestern portion of the Meadowood project area that contained the archaeological resources. Three loci associated with the large Pankey Site, much of which is located off property to the east, were identified during archaeological testing. The loci consist of two midden deposits and one deeply buried archaeological deposit. Archival research indicated that the historic period Monserrate Adobe was located on the property; however, no surface indication of the structure was found.

Additionally, archival research and the field survey identified 13 historic buildings on the Meadowood property either presently existing or no longer extant. These structures are known as the Rancho San Luis Rey/Pankey Ranch building complex. The existing buildings were evaluated for eligibility for the California Register and the San Diego County Local Register of Historical Resources (Local Register). Five of these buildings were constructed in the late 1920s or early 1930s. They were associated with Rancho San Luis Rey, a thoroughbred breeding and training facility owned and operated by Charles E. Cooper between 1931 and 1943. Rancho San Luis Rey became one of the largest thoroughbred breeding farms in the state. The buildings evaluated include a bungalow, a bunkhouse, two small garages, a rustic barn, and a concrete refrigeration room. None of the buildings are recommended as being eligible for either the California or Local Register.

4.1 Archaeological Resources

Three new loci (Loci A, B, and C) associated with CA-SDI-682 were identified during the cultural survey. It must be noted that the larger portion of the site, as originally recorded, is located to the east of the project area and contains extensive bedrock milling; the portion of the site to be impacted by development does not contain bedrock milling. The results of testing of Loci A and B of this site determined that both are CEQA and RPO significant. These sites are considered significant resources as defined by the County of San Diego RPO because they may represent a location of past intense human occupation where buried deposits can provide information on important scientific research questions about prehistoric or historic activities that have scientific, religious, or other ethnic value of local, regional, state, or federal importance. Implementation of the project would result in a significant impact to these resources. Additionally, because the sites are considered significant RPO resources, impacts to the site cannot be mitigated through data recovery and must be mitigated through avoidance.

To preserve the integrity of CA-SDI-682, the applicant shall cap Loci A and B per County of San Diego standards, landscape the area as part of the overall development and place the area in a conservation open space easement. A Preservation Plan describing the methods and ultimate disposition of the capped site area has been prepared and is included in Appendix H of the cultural resources report.

Locus C of CA-SDI-682 consists of sparse, deeply buried deposits, probably covered by extensive colluvial deposition. Due to the deeply buried nature of the deposit, it is possible that undetected, intact archaeological deposits exist below the ground surface. Implementation of the project could result in a significant impact to these resources and archaeological monitoring shall be required.

4.2 Native American Consultation

This project is subject to SB-18, “Sacred Sites Regulation”. Effective March 1, 2005, the Sacred Sites Bill (Section 65352.3 of the Government Code, Senate Bill 18, 2004 [SB-18]) was passed into law. The intent of this law is to allow California Native American Tribes an opportunity to participate in local land use decisions at an early planning stage for the purpose of protecting, or mitigating impacts to, cultural places. SB-18 requires that local governments contact tribes and give them an opportunity to consult and comment on projects that are located within their historic areas. Both ASM and County staff contacted the Native American Heritage Commission (NAHC) for a listing of local Native American individuals or organizations that may be affected by this project.

Charles Devers of the Pauma-Yumia Band of Mission Indians represented Native American concerns as a Native American monitor, and Mark Mojado represented the San Luis Rey Band of Mission Indians during fieldwork. Additionally, the Pauma, Pala, Pechange and San Luis Rey tribes were invited to review the project and discuss proposed mitigation and preservation of the significant archaeological resources on July 28, 2005. An SB-18 tribal consultation field visit was conducted on September 24, 2008.

4.3 Historical Resources

4.3.1 Rancho San Luis Rey/Pankey Ranch

As a result of the cultural resources survey, one historic resource was documented and evaluated for significance. This historic resource is a group of historic buildings associated with Rancho San Luis Rey/Pankey Ranch. The ranch complex was identified and recorded for the Meadowood property during the cultural resource survey, including six buildings that are more than 50 years old. The cultural resources report presents an evaluation of eligibility for both the California and Local Registers for each of these buildings. The ranch evaluation included documentation of the buildings, as well as archival research to provide an historical context and to explore any association they might have with events or people of significance in the history of San Diego and/or California. They were associated with Rancho San Luis Rey, a thoroughbred breeding and training facility owned and operated by Charles E. Cooper between 1931 and 1943. Rancho San Luis Rey became one of the largest thoroughbred breeding farms in the state. The buildings evaluated include a bungalow, a bunkhouse, two small garages, a rustic barn, and a concrete refrigeration room. Based on the results of the evaluation, none of the buildings appear eligible for listing on either the California Register or Local Register.

4.3.2 Site of Monserrate Ranch House

A second, potential historic resource was documented during the archival research for the proposed project. The project site appears to include the location of Historic Period Rancho Monserrate Adobe. No physical indication of the adobe was found during the ASM Affiliates Inc. survey, but map and literature research shows that the adobe may have been located in the southeastern portion of the project site. Implementation of the proposed project could result in impacts to subsurface deposits associated with the adobe. As disturbance to the adobe would be a significant impact, a Monitoring Discovery Plan shall be prepared prior to commencement of construction activity, to be put in use in the event historic deposits are discovered. Additionally, construction monitoring by a professional archaeologist during grading in the vicinity of the mapped location of the Monserrate Adobe, as well as the area south of existing SR-76 would be implemented in order to reduce impacts to below a level of significance.

5.0 MANAGEMENT ELEMENTS AND GOALS

5.1 Biological Element: Goals and Tasks

5.1.1 Biological Element Goal 1

The first goal for biological elements is **to preserve and manage lands to the benefit of the flora, fauna, and native ecosystem functions reflected in the natural communities occurring within the open space preserve.** The following tasks will be used to implement Goal 1:

Task 1: Removal of invasive species. Existing exotic plant species would be removed. The Resource Manager (RM) will coordinate with the developer and owners adjacent to the BOS preserve to provide information regarding exotic plant species and to increase the efficiency of exotic plant control programs. The control

programs would also be designed to prevent future introduction of exotic species. Exotic plant removal would be accomplished by hand or mechanical means. The use of chemical herbicides within the BOS preserve will be restricted unless the RM deems it necessary.

Task 2: Baseline inventory. A baseline inventory update will be conducted during the first year of active management in order to confirm the quantity and quality of the vegetation communities and to detect sensitive species reported or expected to occur within the BOS preserve. This inventory will build on the resource data from the biological technical report (NRC 2009). This update would allow the RM to measure habitat changes due to natural and human effects and to evaluate management efforts during subsequent years.

Task 3: Monitoring. Natural processes (e.g., fire, flood, succession) can cause habitat types to shift and change over time and the BOS preserve would also be susceptible to indirect impacts from the adjacent development, particularly along the edges. The RM will be responsible for regularly tracking changes to the habitats within the BOS preserve in order to determine and prioritize management tasks. Plant and animal surveys shall be conducted every third year.

Task 4: Maintenance. Monitoring of the BOS preserve is needed to ensure that exotic species are being controlled, the general condition of the preserve is being maintained, and public access is held to specified areas (e.g., designated trails). The BOS preserve shall be visually inspected for changes to the habitats during regular maintenance tasks such as monthly monitoring and annual weed control and surveying activities. The RM would be responsible for coordinating the removal of exotic species (as described in Task 1) within two weeks of their discovery. Inspections of the urban/wildlife margins for unauthorized access points, illegal dumping, and other unauthorized activities would be performed by the RM.

5.1.2 Biological Element Goal 2

The second goal for biological elements is **to manage land for the benefit of sensitive species, MSCP covered species, and existing natural communities occurring within the CRMP land.** The following tasks will be used to implement Goal 2:

Task 1: Predator control. Focused monitoring for exotic animal species shall be conducted twice per year. Should the RM determine that pest eradication measures are required within the BOS preserve, the County Department of Parks and Recreation as well as the Department of Environmental Health (DEH) will be contacted to determine the need and manner of pest eradication efforts. The RM may be authorized to hire a licensed pest control contractor to implement approved eradication measures. Control and eradication efforts shall be implemented at the most appropriate times of year and will reflect current field conditions and observations regarding the target species.

Task 2: Species surveys. Surveys and monitoring of listed species are needed to identify short-term threats to species and to identify longer-term trends that may suggest that a population is in decline. Assessments will be conducted concurrently with regular site management activities and would include determining the locations

and conditions of all listed species documented on-site. Plant and animal surveys shall be conducted every third year.

Task 3: Species management. When natural or human disturbances appear to be adversely influencing a sensitive species, adaptive management measures may be required. It will be the responsibility of the RM to evaluate the status of each sensitive species within the BOS preserve and to coordinate the institution of protective measures if any sensitive species becomes threatened.

5.1.3 Management Constraints

There are several factors that may arise during the implementation of the proposed BOS preserve. The following table lists the threats and constraints.

Constraints	Threats
Public use • Equestrian use • Hiking	• Illegal trails • Increased erosion • Trampling • Exotic/invasive species dispersal • Littering
Agriculture • 49.3 acres of agricultural preserves within the vicinity or adjacent to BOS	• The introduction of non-native species. • Excessive irrigation which could speed the spread of non-native species. • Pesticides and fertilizers
Altered fire regime	• Reduction of species diversity • Habitat conversion • Reduction in native pollinators
Urban adjacency • Brush management • Landscaping • Noise • Irrigation runoff • Lighting • Pets and children • Herbicide and pesticides	• Altered soil moisture • Erosion • Exotic species introduction • Exotic ant species or predator species introduction • Littering and trash dumping • Reduction in disturbance-sensitive species • Reduction of biodiversity

As the BOS is intended to serve as a habitat preserve, it may not be compatible with many activities. Activities that would be prohibited within the Meadowood BOS preserve area include:

- Unseasonal watering (e.g. agricultural runoff or supplemental irrigation during the dry season), use of herbicides, pesticides, fertilizers, or agricultural chemicals except at the discretion of the RM.

- Use of off-road vehicles except by the RM.

- Grazing or agricultural activities of any kind.

- Commercial or industrial uses.

- Planting or dispersing exotic plant or animal species.

- Filling, dumping, excavating, draining, dredging, mining, drilling, removing, or exploring for mineral or other resources on or below the surface of the BOS preserve. Unless necessary for restoration or enhancement in accordance with an approved plan.

- Altering the general topography of the BOS preserve.

- Construction or placement of any building, sign, or other improvement other than by the RM for the purpose of educating the public about recreational opportunities and constraints or to alleviate a health or human safety issue.

- Littering or dumping of soil, ashes, refuse, waste, bio-solids, construction debris, or any other material.

- Removing, destroying, or cutting any trees, shrubs, or other vegetation except as required by federal, state, or local law for emergency fire breaks, maintenance of existing trails, prevention or treatment of disease, or required mitigation programs.

5.2 Cultural Resources Element: Goals and Tasks

5.2.1 Cultural Resources Element Goal

The goal for the cultural resources element is to **provide adequate protection for the three loci (Loci A, B, and C) associated with the CA-SDI-682 site which were identified during the cultural survey**. The following tasks will be used to implement the Cultural Resources Element Goal:

Task 1: Capping. The applicant shall cap Loci A and B per County of San Diego standards

Task 2: Monitoring. A professional archaeologist shall monitor grading in the vicinity of Loci C. A Monitoring Discovery Plan shall be prepared prior to commencement of construction activity, to be put in use in the event archeological deposits are discovered.

Task 3: Preservation. Loci A and B shall be landscaped as part of the overall development and placed in an open space easement.

Task 4: Stewardship. A Preservation Plan describing the methods and ultimate disposition of the capped site area (Loci A and B) has been prepared and is described within Appendix H of the cultural resources report prepared for the Meadowood project (ASM Affiliates Inc. 2009).

5.2.2 Management Constraints

There are no known management constraints associated with meeting the cultural resources goals.

5.3 Operations, Maintenance, and Administrative Element: Goals and Tasks

5.3.1 Operations, Maintenance, and Administrative Element Goals 1 and 2

The two goals for operations, maintenance, and administrative elements are: (1) **maintain sufficient access and facilities to provide for public use where such use does not conflict with biological resource management goals or compromise public safety** and (2) **provide facilities and maintenance to support the biological resource goals.**

The project applicant will be responsible for funding the implementation of the CRMP, including "start-up" costs and management/maintenance of the preserve in perpetuity. Funding mechanisms may include direct funding of start-up tasks, a one-time endowment for long-term CRMP implementation, establishment of a community financing district (CFD), or other financial vehicle that will provide the required funding. To implement the CRMP, the project applicant shall select an appropriate RM (per Section 1.2.1) acceptable to the County DPLU. The County will approve the final CRMP to be implemented by the RM. The RM will be responsible for implementing the CRMP and will carry out the associated requirements and tasks.

Task 1: Project Applicant

- Dedicate the biological open space easement to the County.
- Convey fee title to an acceptable entity (per section 1.2.1 of this CRMP).
- Provide adequate funding to support the CRMP "start up" tasks and long-term implementation.
- Supply the RM with all necessary maps and reports.

Task 2: Resource Manager

The RM shall:

- Be an advocate for the protection of the BOS preserve.
- Be familiar with this CRMP, its appendices, and supporting documentation.
- Be responsible for all required tasks listed in this CRMP.
- Understand and maintain all documents transferred by the project applicant.
- Inform the community of the presence of and need for the open space; be responsive to community concerns regarding the open space.

- Document all field visits and consult with the County or other applicable regulatory bodies on concerns and suggested solutions.

- Write and submit annual monitoring reports to the County; submit fees for County review of report.

- Install and maintain fencing, gates, lighting, and signs.

- Be responsible for trash and debris removal.

- Coordinate with the DEH for vector control and herbicide use.

- Maintain trails and access roads.

- Maintain regular office hours.

- Coordinate with utility providers and easement holders.

- Coordinate with law enforcement and emergency services (e.g., fire).

- Coordinate with adjacent land managers.

- Provide for graffiti removal and vandalism repair.

5.4 Public Use Element: Goals and Tasks

Existing dirt roads in the open space will contribute to the trail system. (Figure 3). The Meadowood project proposes to keep the existing trail through the preserve intact, as it provides a link from the San Luis Rey River trail to the existing trails north of the Meadowood site. As described above in Section 2.5, the trail alignments shall be located on existing paths, trails, roads, utility easements and other disturbed habitat areas to avoid environmental impacts. Within the proposed development, new trails would be constructed which would link to the agricultural open space and BOS preserve.

5.4.1 Public Use Element Goal 1

The goal for public use elements is to **provide for public access and use of trails within the BOS preserve while enhancing public education and appreciation to ensure that the public use is not detrimental to the short- or long-term preservation of the natural resources**. The following tasks will be used to implement the Public Use Element Goal 1:

Objectives:

- Provide clearly marked public access points to the Preserve and prohibit access at other locations. Public access should be controlled such that biological functions can be maintained throughout the Preserve and public use impacts can be minimized.

- Provide clearly identified trails for public use and safety. Restricting the locations of public use will assist in maintaining quality habitat for wildlife. Hikers and

horses inadvertently disperse weed seeds, and areas of bare dirt provide substrate for establishment of exotic species.

- Encourage community involvement. Educating and involving the local residents surrounding the reserve will enhance the public's appreciation of conservation goals while facilitating appropriate public uses.

- Identify appropriate passive uses of the reserve, and prohibit inappropriate recreational uses. Encourage uses that take advantage of the natural and scenic beauty of the reserve and that facilitate enjoyment of a wilderness experience. The California Fish and Game Commission identifies appropriate uses and restrictions for Ecological Reserves (Title 14, Chapter 11, Section 630). These include the following:

    1. Protection of resources.

    2. No collecting, except by permit.

    3. No public use of motor vehicles, except on designated access roads and parking areas.

    4. Hiking and riding on designated trails only.

    5. No firearms, except by law enforcement personnel.

    6. Ejection for violation of regulations.

    7. Public entry can be restricted at the discretion of the RM.

    8. No release or introduction of species, unless authorized by the RM.

    9. No feeding of wildlife.

    10. No pesticides, unless authorized by the RM.

    11. No littering.

    12. No grazing.

    13. No pets, unless retained on a leash of less than 10 feet (3 m).

    14. No fireworks or fires, except for management purposes.

    15. No camping.

    16. No vandalism.

RM Tasks:

1. Control public access points.

2. Identify, map, and close off other points of possible access by the public, using appropriate fencing and signs.

3. Map foot trails.

4. Do not allow any new trails to be created.

5. Identify property owners along the reserve boundaries and establish a neighbor education/partnership program.

6. Provide for an annual homeowners' association presentation.

7. Restrict mountain bikes and equestrians to existing trails through the reserve.

8. Establish a trailhead with kiosk and signs, and develop a trails map.

9. Identify public safety issues and provide (within a publicly accessible location) a list of emergency service providers for the area and applicable procedures.

10. Publish a newsletter and website about reserve stewardship activities.

11. Prohibit feeding of wildlife (Title 14, Ch.11. 630).

12. Prohibit unauthorized collection and introduction of plants and wildlife (Title 14, Ch.11. 630).

13. Prohibit dumping of dirt, trash, and garden refuse (Title 14, Ch.11. 630).

14. Prohibit firearms, pesticides, fireworks, and fire, except where authorized (Title 14, Ch.11. 630).

15. Prohibit camping and vandalism (Title 14, Ch.11. 630).

16. Pets must be retained on a leash of less than 10 feet (Title 14, Ch.11. 630).

5.5 Fire Management Element: Goals and Tasks

The hillside environment found on the project site outside of the orchards is dominated by coastal sage scrub vegetation that is referred to in the fire protection plan (FPP) as sage/buckwheat vegetation. In canyons where moisture is more available, isolated pockets of heavier vegetation is found. It is likely to continue to support these plant communities without human intervention.

5.5.1 Goals

The goal of the Fire Management Element is to establish vegetation management, operations, facilities maintenance, and public use actions which reduce risk to both people and property and protect CRMP land resources.

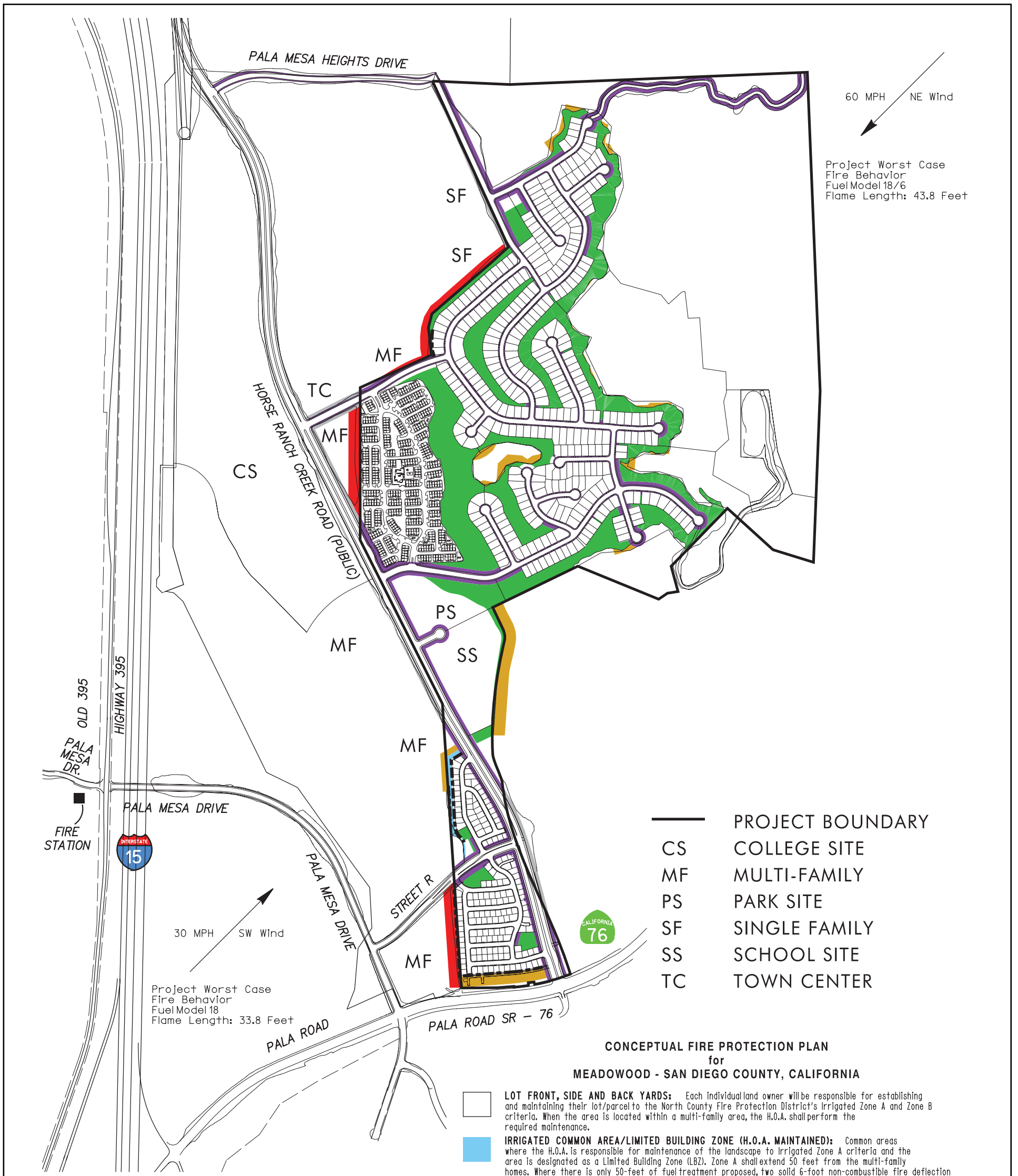
5.5.2 Tasks

- The Meadowood HOA shall implement the FPP attached to this CRMP as Appendix C. As specified in Section 5.4 of the FPP, the Meadowood HOA would be responsible for maintaining the fuel modification zones. The NCFPD would be designated as the third party beneficiary of the HOA's duty to perform "fire prevention maintenance" for all portions of the HOA property (common areas) that constitute the fuel modification zones and designated interior/manufactured slopes. These tasks would be mandated inclusions in the Meadowood covenants and agreements and are described in detail within Section 5.4 of the FPP (Appendix C).

- The Meadowood HOA shall comply with all regulations relating to emergency access, water supply, and defensible space specified in the Consolidated Fire Code for the 17 Fire Protection Districts in San Diego County and Appendix II-A, as adopted and amended by the local fire protection district. The NCFPD would be designated as the third party beneficiary of the HOA's duty to maintain fire access, water supply, and defensible space as specificed in Section 5.4 of the FPP (Appendix C).

The purpose of the FPP is to provide fuel modification zone treatment direction for developers, architects, builders, North County Fire Protection District and San Diego County Planning Officials to use in making the proposed structures safe from future wildland fires. With implementation of the FPP, the proposed project would comply with all applicable requirements of the State Fire Code and San Diego County Fire and Building Codes, as well as applicable regulations of the Fire Department.

Map Source: Rick Engineering Company, June 2009



CONCEPTUAL FIRE PROTECTION PLAN
for
MEADOWOOD - SAN DIEGO COUNTY, CALIFORNIA

LOT FRONT, SIDE AND BACK YARDS: Each individual land owner will be responsible for establishing and maintaining their lot/parcel to the North County Fire Protection District's Irrigated Zone A and Zone B criteria. When the area is located within a multi-family area, the H.O.A. shall perform the required maintenance.

IRRIGATED COMMON AREA/LIMITED BUILDING ZONE (H.O.A. MAINTAINED): Common areas where the H.O.A. is responsible for maintenance of the landscape to Irrigated Zone A criteria and the area is designated as a Limited Building Zone (LBZ). Zone A shall extend 50 feet from the multi-family homes. Where there is only 50-feet of fuel treatment proposed, two solid 6-foot non-combustible fire deflection walls located within or adjacent to this zone will separate wildland fuels from the development. See special fire protection feature below. All native plants shall be removed and replaced with plants from the San Diego County approved plant list. The area shall be provided with a permanent irrigation system.

NATURAL/MANUFACTURED SLOPES (H.O.A. MAINTAINED) Areas either on-site or off-site where prohibited wildland vegetation has been cleared and replaced with plants from the approved plant list and maintained to Zone C criteria. Off-site areas shall have an approved fuel treatment agreement. The H.O.A. shall maintain these areas. Access to these areas will be provided and maintained by the H.O.A.

MANUFACTURED SLOPES COMMON AREAS (H.O.A. MAINTAINED) Irrigated or non-irrigated Firewise Landscaping of native grasses or native or ornamental plants and shrubs per the approved plant list. Should a manufactured slope occur within 50 feet of a home or other structure, then Irrigated Zone A criteria shall apply and between 50 - 100 feet of a home or other structure, Zone B criteria shall apply. The common areas are to be annually maintained by the H.O.A.

TEMPORARY FUEL MODIFICATION AGREEMENT ZONE (H.O.A. MAINTAINED) An off-site area where the adjacent owner will allow the H.O.A. to maintain the area to Thinning Zone C criteria until such time as the area is developed. The area shall be 90 feet in width west of PA-1 and as shown elsewhere.

ROADSIDE FUEL TREATMENT (H.O.A. MAINTAINED) An area along both new public and private roads located within the project where the vegetation shall be maintained to irrigated Zone A criteria within 30 feet of the roadway or to the adjacent private propery line. The area shall be maintained by the H.O.A.

ROADSIDE FUEL TREATMENT AGREEMENT (H.O.A. MAINTAINED) An area located outside the project where the vegetation along a road shall be maintained to irrigated Zone A criteria within 30 feet of the roadway. Alternatively, the native vegetation may be cleared in lieu of planting.

SPECIAL FIRE PROTECTION FEATURE Non-combustible solid fire deflection wall, six feet in height installed at the ocations shown. The wall may contain a view wall in the upper half where tempered glass is installed as ong as the wall remains solid and non-combustible.

NO SCALE

FIGURE 7
Fire Protection Plan

RECON

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6.0 RESOURCE MANAGEMENT PLAN SUMMARY AND BUDGET

6.1 Operations and Budget Summary

To be developed.

6.2 Existing Staff and Additional Personnel Needs Summary

To be developed.

7.0 REFERENCES CITED

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APPENDIX A

APPENDIX ~~C~~A
MEADOWOOD FLORAL COMPENDIUM

SCIENTIFIC NAME	COMMON NAME
FERNS AND FERN ALLIES	
PTERIDACEAE - BRAKE FAMILY	
Pentagramma triangularis	goldenback fern
SELAGINELLACEAE - SPIKE-MOSS FAMILY	
Selaginella bigelovii	Bigelow's spike-moss
ANGIOSPERMS: DICOTYLEDONS	
ADOXACEAE - ELDERBERRY FAMILY	
Sambucus mexicana	Mexican elderberry
AMARANTHACEAE - AMARANTH FAMILY*	
Amaranthus albu	stumbling pigweed*
Chenopodium album	lamb's quarters*
Chenopodium murale	nettle-leaved goosefoot*
Salsola tragus	Russian thistle
ANACARDIACEAE - SUMAC FAMILY	
Malosma laurina	laurel sumac
Rhus integrifolia	lemonadeberry
Rhus ovata	sugar bush*
Schinus molle	Peruvian pepper tree
APIACEAE - CARROT FAMILY	
Daucus pusilus	rattlesnake weed*
Foeniculum vulgare	sweet fennel
ASTERACEAE - SUNFLOWER FAMILY	
Ambrosia acanthicarpa	annual bur-sage
Artemisia californica	California sagebrush
Baccharis pilularis	coyote brush
Baccharis salicifolia	mulefat
Bebbia junceas	weetbush
Brickellia californica	California brickellbush*
Carduus pycnocephalus	Italian thistle*
Centaurea melitensis	tocalote*
Conyza bonariensis	flax-leaved horseweed*
Conyza Canadensis	common horseweed
Deinandra fasciculate	fascicled tarplant
Eriophyllum confertiflorum	golden yarrow
Filago californica	California filago*
Filago gallica	narrow-leafed filago
Gnaphalium canescens	felty everlasting
Gutierrezia sp	matchweed
Hazardia	squarrosasaw-toothed goldenbush*
Hedypnois cretica	Crete hedypnois
Heterotheca grandiflora	telegraph weed*
Lactuca serriola	wild lettuce
Lessingia filaginifolia	California-aster

Porophyllym gracile	odora
Rafinesquia californica	California chicory*
Silybum marianum	milk thistle*
Stephanomeria virgata	prickly sow thistle
Sonchus asper ssp. Asper	twiggy wreathplant
BORAGINACEAE - BORAGE FAMILY	
Amsinckia menziesii	common fiddleneck
Phacelia cicutaria	caterpillar phacelia
Plagiobothrys sp	popcornflower
BRASSICACEAE - MUSTARD FAMILY*	
Brassica nigra	black mustard*
Hirschfeldia incana	short-podded mustard*
Raphanus sativus	wild radish
CACTACEAE - CACTUS FAMILY*	
Opuntia ficus-indica	Indian fig
Opuntia littoralis	coastal prickly pear
Opuntia parryi	valley cholla
CAPRIFOLIACEAE - HONEYSUCKLE FAMILY	
Lonicera subspicata	wild honeysuckle
CARYOPHYLLACEAE - PINK FAMILY	
Silene laciniata	fringed pink
CISTACEAE - ROCK-ROSE FAMILY	
Helianthemum scoparium	peak rush-rose
CONVOLVULACEAE - MORNING-GLORY FAMILY	
Calystegia macrostegia	wild morning-glory
Cuscuta californica	California dodder
CRASSIFOLIACEAE - STONECROP FAMILY	
Dudleya lanceolata	lance-leafed dudleya
Dudleya pulverulenta	chalk dudleya
CUCURBITACEAE - CUCUMBER FAMILY	
Marah macrocarpus	wild cucumber
ERICACEAE - HEATH FAMILY	
Xylococcus bicolor	mission manzanita
EUPHORBIACEAE - SPURGE FAMILY	
Chamaesyce sp.	spurge
Eremocarpus setigerus	dove weed*
Ricinus communis	castor-bean
FABACEAE - LEGUME FAMILY	
Lathyrus laetiflorus	San Diego sweetpea
Lotus scoparius	Deerweed
Melilotus albus	white sweet clover
FAGACEAE - OAK FAMILY	
Quercus agrifolia	coast live oak
Quercus berberidifolia	California scrub-oak
GERANIACEAE - GERANIUM FAMILY*	
Erodium botrys	long-beaked filaree*
Erodium cicutaria	red-stemmed filaree
LAMIACEAE - MINT FAMILY*	
Marrubium vulgare	horehound
Salvia apiana	white sage

Salvia columbariae	chia
Salvia mellifera	black sage
LAURACEAE - LAUREL FAMILY*	
Persea Americana	avocado
MALVACEAE - MALLOW FAMILY	
Malacothamnus fasciculatus	mesa bushmallow*
Malva parviflora	cheeseweed
MYRTACEAE - MYRTLE FAMILY*	
Eucalyptus sp.	gum tree
NYCTAGINACEAE - FOUR-O-CLOCK FAMILY	
Mirabilis californicus	wishbone plant
PHRYMACEAE - MONKEYFLOWER FAMILY	
Mimulus aurantiacus	bush monkey-flower
PLANATACEAE - SYCAMORE FAMILY	
Platanus racemosa	western sycamore
POLYGONACEAE - BUCKWHEAT FAMILY	
Eriogonum fasciculatum	California buckwheat
Eriogonum gracile	slender buckwheat
Chorizanthe fimbriata	Turkish rugging
RHAMNACEAE - BUCKTHORN FAMILY	
Rhamnus ilicifolia	holly-leaf redberry
Ceanothus tomentosus	Ramona lilac
ROSACEAE - ROSE FAMILY	
Adenostoma fasciculatum	chamise
Cercocarpus sp.	mountain mahogany
Heteromeles arbutifolia	Toyon
Prunus ilicifolia	holly-leaf cherry
RUBIACEAE - MADDER FAMILY	
Galium angustifolium	narrow-leaved bedstraw
RUTACEAE - RUE FAMILY*	
Citrus limonia	lemon*
Citrus sinensis	orange
SCROPHULARIACEAE - FIGWORT FAMILY*	
Myoporum laetum	shrub myoporum
SOLANACEAE - NIGHTSHADE FAMILY	
Datura wrightii	datura*
Nicotiana glauca	tree tobacco
Solanum xanti	chaparral nightshade
TAMARICACEAE - TAMARISK FAMILY*	
Tamarix sp.	tamarisk
VERONICACEAE - VERONICA FAMILY	
Keckiella antirrhinoides	yellow bush-penstemon

ANGIOSPERMS: MONOCOTYLEDONS

AGAVACEAE - AGAVE FAMILY	
Hesperyucca whipplei	foothill yucca
Calochortus sp.	mariposa lily
Chlorogalum sp.	amole
Bloomeria crocea	common goldenstars

Dichelostemma capitatum	blue-dicks
ARECACEAE - PALM FAMILY*	
Phoenix dactylifera	date palm*
Washingtonia robusta	Mexican fan palm
POACEAE - GRASS FAMILY	
Achnatherum coronatum	giant needlegrass*
Avena sp.	wild oat*
Bromus diandrus	ripgut grass*
Bromus hordeaceus	soft chess*
Bromus madritensis	foxtail chess*
Cynodon dactylon	Bermuda grass
Leymus condensatus	giant wild rye
Melica sp.	melic
Nassella lepida	foothill needlegrass*
Pennisetum setaceum	purple fountain grass
Vulpia myuros	rattail fescue

APPENDIX B

APPENDIX ~~D~~B
MEADOWOOD FAUNAL COMPENDIUM

SCIENTIFIC NAME	COMMON NAME
INVERTEBRATES	
HOMOPTERA - CICADAS, LEAFHOPPERS & ALLIES	
Family *Cicadidae*	cicada
ORTHOPTERA - GRASSHOPPERS, CRICKETS & KATYDIDS	
Gryllus sp.	field cricket
Trimerotropis pallidipennis	pallid band-winged grasshopper
LEPIDOPTERA – BUTTERFLIES & MOTHS	
Apodemia virgulti	Behr's metalmark
Euphilotes bernardino	Bernardino blue
Eurema nicippe	sleepy orange
Junonia coenia	buckeye
Leptotes marina	marine blue
Nathalis iole	dainty sulphur
Papilio cresphontes	giant swallowtail
Pieris rapae	cabbage white
Pontia protodice	checkered white
Pyrgus albescens	white checkered skipper
Vanessa cardui	painted lady
Nymphalis antiopa	mourning cloak
Vanessa annabella	west coast lady
Family Geometridae	geometrid moth
DIPTERA - GNATS, MIDGES & FLIES	
Dilophus orbatus	little black march fly
Family *Muscidae*	muscid fly
Parasarcophaga sp.	flesh fly
HYMENOPTERA - ANTS, WASPS & BEES	
Apis mellifera	European honeybee
Bombus crotchii	Crotch's bumblebee
Bombus vosnesenskii	Vosnesenski's bumblebee
Iridomyrmex humilis	Argentine ant
Pepsis sp.	spider wasp
Pogonomyrmex sp.	harvester ant
Xylocopa californica	California carpenter bee
Family *Sphecidiae*	sphecid wasp
ARANEAE - SPIDERS	
Argiope argentata	silver orb weaver
GASTROPODA - SNAILS & SLUGS	
Helix aspera	brown garden snail
AMPHIBIANS	
BUFONIDAE – TRUE TOADS	
Bufo californicus	arroyo toad
PELOBATIDAE – SPADEFOOT TOADS AND RELATIVES	
Spea (=*Scaphiopus*) *hammondii*	western spadefoot toad

HYLIDAE - TREEFROGS	
Pseudacris regilla	Pacific chorus frog

REPTILES

COLUBRIDAE - COLUBRIDS	
Diadophis punctatus similis	San Diego ringneck snake
Thamnophis hammondii	two-striped garter snake
VIPERIDAE - VIPERS	
Crotalus rubber ruber	northern red rattlesnake
IGUANIDAE - IGUANID LIZARDS	
Sceloporus occidentalis	western fence lizard
PHRYNOSOMATIDAE – ZEBRA-TAILED, EARLESS, FRINGE-TOED, SPINY, TREE, SIDE-BLOTCHED, AND HORNED LIZARDS	
Phrynosoma coronatum (blainvillei)	coast (San Diego) horned lizard
Uta stansburiana	side-blotched lizard
SCINCIDAE - SKINKS	
Eumeces skiltonianus interparietalis	Coronado western skink
TEIIDAE - WHIPTAIL LIZARDS	
Apisdoscelis hyperythrus	orange-throated whiptail
Aspidoscelis tigris stejnegeri	coastal western whiptail

BIRDS

CATHARTIDAE – NEW WORLD VULTURES	
Cathartes aurra	turkey vulture
ACCIPITRIDAE - HAWKS	
Circus cyaneus	northern harrier
Buteo lineatus	red-shouldered hawk
Buteo jamaicensis	red-tailed hawk
FALCONIDAE - FALCONS	
Falco sparverius	American kestrel
ODONTOPHORIDAE - QUAILS	
Callipepla californica	California quail
COLUMBIDAE - PIGEONS & DOVES	
Zenaida macroura	mourning dove
CUCULIDAE - CUCKOOS & ROADRUNNERS	
Geococcyx californianus	greater roadrunner
TYTONIDAE – BARN OWLS	
Tyto alba	barn owl
APODIDAE - SWIFTS	
Aeronautes saxatalis	white-throated swift
TROCHILIDAE - HUMMINGBIRDS	
Calypte anna	Anna's hummingbird
Calypte costae	Costa's hummingbird
PICIDAE - WOODPECKERS	
Melanerpes formicivorus	acorn woodpecker
Picoides nuttallii	Nuttall's woodpecker
Colaptes auratus	northern flicker
TYRANNIDAE - TYRANT FLYCATCHERS	

Empidonax difficilis	Pacific-slope flycatcher
Myiarchus cinerascens	ash-throated flycatcher
Sayornis nigricans	black phoebe
Sayornis saya	Say's phoebe
Tyrannus verticalis	western kingbird
Tyrannus vociferans	Cassin's kingbird
VIREONIDAE - VIREOS	
Vireo huttoni	Hutton's vireo
CORVIDAE - JAYS & CROWS	
Aphelocoma californica	western scrub-jay
Corvus brachyrhynchos	American crow
Corvus corax	common raven
HIRUNDINIDAE - SWALLOWS	
Petrochelidon pyrrhonota	cliff swallow
Stelgidopteryx serripennis	northern rough-winged swallow
AEGITHALIDAE - BUSHTITS	
Psaltriparus minimus	bushtit
TROGLODYTIDAE - WRENS	
Catherpes mexicanus	canyon wren
Thryomanes bewicki	Bewick's wren
Troglodytes aedon	house wren
REGULIDAE - KINGLETS	
Regulus calendula	ruby-crowned kinglet
SYLVIIDAE - OLD WORLD WARBLERS AND GNATCATCHERS	
Polioptila caerulea	blue-gray gnatcatcher
Polioptila californica	California gnatcatcher
TURDIDAE - THRUSHES	
Catharus guttatus	hermit thrush
Sialia mexicana	western bluebird
TIMILLIDAE - BABBLERS	
Chamaea fasciata	wrentit
MIMIDAE - THRASHERS	
Mimus polyglottos	northern mockingbird
Toxostoma redivivum	California thrasher
MOTACILLIDAE - PIPITS	
Anthus rufescens	American pipit
PTIOGONATIDAE – SILKY FLYCATCHERS	
Phainopepla nitens	phainopepla
PARULIDAE - WOOD WARBLERS	
Vermivora celata	orange-crowned warbler
Dendroica coronata	yellow-rumped warbler
EMBERIZIDAE - TOWHEES & AMERICAN SPARROWS	
Pipilo crissalis	California towhee
Pipilo maculatus	spotted towhee
Aimophila ruficeps	rufous-crowned sparrow
Chondestes grammacus	lark sparrow
Spizella atrogularis	black-chinned sparrow
Passerculus sandwichensis	savannah sparrow
Melospiza melodia	song sparrow
Melospiza lincolnii	Lincoln's sparrow

Zonotrichia leucophrys	white-crowned sparrow
Junco hyemalis	dark–eyed junco
CARDINALIDAE – CARDINALS, GROSBEAKS, & BUNTINGS	
Guiraca caerulea	blue grosbeak
Passerina amoena	lazuli bunting
ICTERIDAE – BLACKBIRDS, ORIOLES, & ALLIES	
Agelaius phoeniceus	red-winged blackbird
FRINGILLIDAE - FINCHES	
Carpodacus mexicanus	house finch
Carduelis psaltria	lesser goldfinch

MAMMALS

HETEROMYIDAE – POCKET MICE	
Chaetodipus fallax fallax	northwestern San Diego pocket mouse
CRICETIDAE – NEW WORLD RATS, MICE, & RELATIVES	
Neotoma spp.	woodrat
GEOMYIDAE - POCKET GOPHERS	
Thomomys bottae	Botta's pocket gopher
SCIURIDAE - SQUIRRELS	
Spermophilus beecheyi	California ground squirrel
LEPORIDAE - HARES & RABBITS	
Sylvilagus audubonii	Audubon's cottontail
CANIDAE – WOLVES & FOXES	
Canis latrans	coyote